View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Elsevier - Publisher Connector

SHA 74. Silent ischemia in patients with diabetes

Asim Hassan
Clinical Director, Consultant Endocrinologist King Saudi University

Individuals with both type 1 and type 2 diabetes mellitus (DM) are known to be at high risk for developing coronary artery disease (CAD). The risk is two to three times greater in those with DM compared with those without, and is especially high in women with DM. An additional problem in individuals with DM is that, even with severe underlying CAD, many individuals may have atypical symptoms or be totally asymptomatic, a condition referred to as silent or asymptomatic myocardial ischemia.

Asymptomatic myocardial ischemia is frequently found in individuals with known CAD, even in individuals without DM, and is associated with a poorer long term prognosis. The Asymptomatic Cardiac Ischemia Pilot Study demonstrated that asymptomatic ischemia was associated with three times the risk of nonfatal myocardial infarction and six times the risk of myocardial infarction or death.

However, asymptomatic myocardial infarction also occurs in a substantial number of individuals without known CAD, particularly those with DM. These individuals have not been diagnosed with CAD and do not have the benefit of anti-anginal therapies or aggressive CAD risk reduction. In the recent Detection of Ischemia in Asymptomatic Diabetics (DIAD) study, 21.6% of older adults with type 2 DM, none of whom had any clinical evidence of CAD, had evidence of myocardial ischemia on single photon emission computed tomography (SPECT) myocardial perfusion imaging. This finding was consistent with earlier studies in the population with type 2 DM.

In asymptomatic patients with either type 1 or type 2 DM, asymptomatic myocardial ischemia is also associated with major cardiac events. Importantly, the presence of cardiac autonomic neuropathy, long theorized to have a role in asymptomatic CAD, substantially increases the risk of subsequent cardiac events, with those individuals with both asymptomatic myocardial ischemia and cardiac autonomic neuropathy, being at highest risk.

doi:10.1016/j.jsha.2010.02.350

SHA 75. The missed essence: Holistic nursing care

Bushra Al Hunidi, Education Coordinator
Cardiovascular Nursing King Faisal Specialist Hospital

Objectives: • To discuss the holistic patient and family care concepts. • To describe the family impact on the patient response to treatment. • To define the patient and the family influence on out come of care. • To enlist the patient and family needs. • To outline useful interventions for families in the acute care.

Methods: Clinical observation and Literature review.

Results: There is a critical need for nursing to shift back to holistic care practice provided to patient especially in acute care sittings.

Conclusion: Globally, the health care setting is moving with fast speed, towards high technology driven critical care. The result is often a shift in attention from the patient and family holistic care, to technology and treatment necessary for maintaining the physiological functioning of the patient. Technical skills have gained great emphasis along with professional competency and reaction to critical emergencies. Consequently, an intrinsic component of the nursing profession, holistic care, is often missing (Urden et al., 2006). Nursing holistic care stresses that the human body, the mind, and the spirit are interdependent and undividable (Urden et al., 2006). The aim of the following case study is to empower the nurses to 'engage in' and 'transform' the care provided to the patient, and their family, in a holistic manner.

Tracks: Cardiac Nursing.

doi:10.1016/j.jsha.2010.02.351

SHA 76. ARDS (H1N1) after cardiac surgery: A word of caution

Dr. Ahmed A Arifi, Munir Ahmad, Hani Najm
Consultant Cardiac Surgeon, Department of Cardiac Sciences

Objectives: An outbreak of a respiratory illness proved to be caused by novel swine-origin influenza A (H1N1) virus (S-OIV) was identified in Mexico in March 2009. Since then there was exponential increase in the number of the reported H1N1 cases world wide reaching the pandemic level. Saudi Arabia is one of the countries which reported confirmed H1N1 cases of mild illness, However, This report describe the first reported cases of confirmed H1N1 Influenza A causing Acute Respiratory Distress Syndrome (ARDS) after cardiac surgery.

Methods: A total of five patients developed sever respiratory distress syndrome after cardiac surgery. Three cases after adult and one case after pediatric cardiac surgery. All patients presented similarly with dyspnea, respiratory distress and bilateral patchy pneumonia early after cardiac surgery. Other common findings there were lymhopenia, no fever, and normal creatine kinase level. The diagnosis confirmed using reverse transcriptase polymerase chain reaction of nasopharyngeal aspirates.

Results: All patients recognized early and treated using mechanical ventilation, high dose of methylprednisolon, Tamiflu and broad spectrum antibiotics. However, the pediatric patient required Extra Corporeal Membrane Oxygenator for ventilator support for 1 month. All patients fully recovered and discharged home.

Conclusion: Acute respiratory distress syndrome is an extreme form of acute lung injury that is characterized by inflammation of the lung parenchyma and by increased micro vascular permeability. ARDS after cardiac surgery is usually associated with multi organ failure and carries an overall mortality of more than 50%. Therefore, we wish to raise the awareness that patients after major cardiac surgery may represent a vulnerable group to develop H1N1 respiratory distress syndrome without any classical flu manifestation. We believe that the early recognition, mechanical ventilation and corticosteroids therapy may have played a role in the early recovery of these patients.

Tracks: Cardiovascular Surgery.

doi:10.1016/j.jsha.2010.02.353

SHA 77. Respiratory ECMO for H1N1 ARDS post cardiac surgery

Ms. Lamees Albonny [a], Dr. Hani Najm [b],
Dr. Kabbani Mohamed [b], Dr. Barbary Mohmoud [b],
Dr. Hijazi Omar [b], Dr. Ahmed Arifi [b]
[a] *Perfusion Technicion, Department of Cardiac Sciences*
[b] *Consultant Cardiac Surgeon, Department of Cardiac Sciences*

Objectives: To describe the ECMO perfusion technical challenges over 4 weeks period, in treating a sever form of ARDS in a child after cardiac surgery.

Methods: We present a case of 4 years old girl who underwent two stage procedures to correct Fontan Pathology. Left Glenn shunt as first stage then fenestrated Fontan with common atrioventricular valve repair as a second stage. The patient had uneventual post operative recovery and discharge home. However, she was re-admitted few days after discharge with high fever and manifestation of respiratory chest infection. On investigation she was proven to be H1N1positive. The patient respiratory condition deteriorated dramatically within 48 h. She developed acute respiratory failure which required mechanical respiratory support. She also developed a sever heart failure which required significant chemical ion tropic support. Despite all the above measures, the patient condition continue to deteriorate and the Decision was taken to insert the extracorporeal membrane oxygenation (ECMO), as a bridge for respiratory failure recovery. The ECMO cannulation were Veno-Venous. femoral vein as input flow and internal jugular as output flow connected to pediatric oxygenator D905 with 3/8–3/8 circuit We started with one liter flow per minute, 100% FiO_2, 5 L gas flow to maintain her core temperature on 36 °C. she got hemofiltration as additional device attached to the circuit to help taking out the excessive fluid. As she was on ECMO for long time her creatinine and urea and lactic acid started to be elevated, so we applied dialysis system beside the regular hemofiltration. She was on heparin infusion to maintain the ACT (180–200 s) therefore, we faced bleeding problem from the cannula sides and even from the mouth.

Results: The patients were assessed daily for the respiratory and haemodynamic recovery. Chest X-ray were performed daily to check for any parenchymal infiltarate recovery and the patient became H1N1 negative after 10 days. We were able to start weaning from the respiratory support after 23 days and to be weaned from the mechanical ventilation after one month. Patient however, required aggressive dietary and physiotherapy to help her regain her strength.

Conclusion: Diligence, persistence and luck were the essence of this case. Early diagnosis and respiratory support may have helped in saving this child.

Tracks: Cardiac Perfusion.

doi:10.1016/j.jsha.2010.02.354

SHA 78. Coarctation plus VSD one or two stage repair?

Imad Naja MD, SBCVS, Hani K. Najm MD, FRCS, Ahmed A. Arifi MD, FRCS, Riyadh Abou Sliman MD, Omar Tamimi MD, Abdulaziz Alkhaldi MD
Department of Cardiac Sciences, King Abdulaziz Cardiac Center, Riyadh, Saudi

Objectives: One versus two stages surgical management of coarctation with ventricular septal (Coarct/VSD) defect is still controversial. Each algorithm has merits and disadvantages. We sought to look at the results in our institution, analyzing in each group the mean age, intensive care stay, complications and the total hospital stay.

Methods: Between 1999 and 2008, 73 patients were admitted to our hospital with the diagnosis of Coarct/VSD. This cohort was analyzed retrospectively and divided in two groups; Group one: 23/73 underwent single stage repair (SS) using selective cannulation for the common trunk with mild to moderate hypothermia without circulatory arrest; Group two 50/73 had double stage (DS), 15 underwent two stage repair in the same admission while 35 had the repair in two separate admissions.

Results: The mortality is 0% for both groups, The mean inotropic support (per hour) SS 176 h, vs. DS (126.5 two admissions and 81.5 one admission), for ventilation support (per hour) for the SS 263, for the DS (One admission 86, two admission 156). The mean stay in ICU for SS is 13.5 days, while for DS is (16 days after Coarc. repair and 13.5 after VSD closure). The mean hospital stay for SS was 18 days while for DS was 25 days. Group three, 2/23 lost follow-up. The total 21 patients followed up by echo. About 8/21 had spontaneous closure of the VSD, 13/21 the VSD became smaller but did not close completely.

Conclusion: There is no substantial difference in the outcome among the two groups. We believe that this entity can to undergo one stage repair with excellent outcome.

Tracks: Cardiovascular Surgery.

doi:10.1016/j.jsha.2010.02.355

SHA 79. Fontan operation to fenestrate or not fenestrate

Imad Naja MD, SBCVS, Hani. K. Najm MD, FRCS, Fahed Alhabshan MD, Mansour Almoutairi MD
Department of Cardiac Sciences, King Abdulaziz Cardiac Center Riyadh, Saudi Arabia

Objectives: Fontan is the final surgical stage repair for the single ventricle congenital heart defect. Despite the known advantages of the extracardiac conduit fenestration of the conduit is becoming of questionable. The purpose of the study is to evaluate the patient outcome between the fenestrated (FN) and the none fenestrated (NF) group.

Methods: We retrospectively reviewed 53 patients that underwent Fontan operation between 2002 and 2009. The median age at operation was 6.5 years for the FN vs. 5 years for the NF, 25 were fenestrated (FN) and 27 none fenestrated (NF); All were extracardiac Fontan with Gortex tube between 18 and 20 mm.

Results: The was no mortality in either groups, the post operative ICU stay was 6.5 days vs. NF 5.5 days. The postoperative inotropic support per hour FN 71 h/NF 29 h, the ventilator support were for the FN 59 h/NF 23 h while the postoperative complications were chylothoraxy FN(5)/NF (2) all resolved by medical treatment, two patients required longer chest drainage due to recurrent chylothorax another two had diaphragm paralysis not requiring any surgical intervention.

Conclusion: Our results showed that there is a trend towards longer ventilation, longer inotropic support and longer hospital stay in the fenestrated group, however, there were no significant difference in the outcome between the groups. Further studies are required to further examine this surgical notion.

Tracks: Cardiovascular Surgery.

doi:10.1016/j.jsha.2010.02.356